

**DETAILED ACTION**

**EXAMINER'S AMENDMENT**

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Theodore C. Shih, Reg. No.: 60,645 on 6/19/2008.

The application has been amended as follows:

**In The Claims:**

1. (currently amended): A content distribution system comprising:

a base station which utilizes at least one type of communication channel to distribute communication data content between the base station and at least one mobile station; and

the base station further comprising channel determination means which makes a determination of the at least one type of communication channel to be used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein

the at least one type of communication channel, further comprises:

an individual communication channel, and

a common communication channel,

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the channel determination means bases the determination on a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel, and

the channel determination means determines that the at least one type of communication channel is switched from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

**2. (canceled)**

**3. (canceled)**

4. (currently amended): The content distribution system according to claim 1, wherein

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the channel determination means includes means for switching the at least one type of communication channel from the individual communication channel to the common communication channel as long as a total downlink transmission power of the base station during the channel switching from the individual communication channel to the common communication channel does not exceed an upper limit of a transmission power that the base station can output to a cell.

5. (previously presented): The content distribution system according to claim 4, wherein

the individual communication channel is individually assigned to the at least one mobile station,

the common communication channel is commonly assigned to the at least one mobile station, and

the channel determination means sequentially performs the channel switching for the individual communication channel in an ascending order of the transmission power required to complete the channel switching from the individual communication channel to the common communication channel.

6. (previously presented): The content distribution system according to claim 4, wherein

the common communication channel is commonly assigned to the at least one mobile station,

the individual communication channel is individually assigned to the at least one mobile station, and

the channel determination means sequentially assigns the individual communication channel to the at least one mobile station in a descending order of the downlink transmission power of the individual communication channel through which the at least one mobile station receives the communication data

content when the individual channel is used for the distribution to complete the channel switching from the common communication channel to the individual communication channel.

7. (previously presented): The content distribution system according to claim 1, wherein

the channel determination means bases the determination on a total number of the at least one mobile station.

8. (previously presented): The content distribution system according to claim 1, wherein

the channel determination means bases the determination on an allowable number of the at least one mobile station that receive a service of the distribution of the communication data content.

9. (previously presented): The content distribution system according to claim 1, wherein

the channel determination means bases the determination on an allowable number of the at least one mobile station that receive services other than that of distribution of the communication data content.

10. (previously presented): The content distribution system according to claim 1, wherein

the determination of the at least one type of communication channel between the base station and the at least one mobile station is performed in the distribution of the communication data content.

11. (currently amended): A channel determination method of a content distribution system comprising:

utilizing at least one type of communication channel to distribute communication data content between a base station and at least one mobile station

determining one of the at least one type of communication channel used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein:

the at least one type of communication channel, further comprises:

an individual communication channel, and

a common communication channel;

determining the one of the at least one type of communication channel used on the basis of a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common channel;

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determining whether the at least one type of communication channel is switched from an individual communication channel to a common communication channel on the basis of a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel when the common communication channel is being used; and

determining the at least one type of communication channel is switched from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

**12. (canceled)**

**13. (canceled)**

14. (currently amended): The channel switching control method according to claim 11 further comprising:

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determining the at least one type of communication channel is switched from the individual communication channel to the common communication channel as long as a total downlink transmission power of the base station during the channel switching does not exceed an upper limit of a transmission power that the base station can output to a cell.

15. (previously presented): The channel switching control method according to claim 14 further comprising:

- assigning individually the individual communication channel to the at least one mobile station;
- assigning commonly the common communication channel to the at least one mobile station; and
- performing sequentially the determining the at least one type of communication channel of the individual communication channel in an ascending order of the downlink transmission power to complete the channel switching from the individual communication channel to the common communication channel.

16. (previously presented): The channel switching control method according to claim 14 further comprising:

- assigning commonly the common communication channel to the at least one mobile station;
- individually assigning the individual communication channel to the at least one mobile station; and wherein
- the determining the at least one type of communication channel further comprises:
  - sequentially assigning the individual communication channel to the at least one mobile station in a descending order of the downlink transmission power of the individual communication channel;

receiving the communication data content through the at least one mobile station when the individual communication channel is used for the distribution; and

completing the channel switching from the common communication channel to the individual communication channel.

17. (previously presented): The channel determination method according to claim 11 further comprising:

determining the at least one type of communication channel on a basis of a total number of the at least one mobile station.

18. (previously presented): The channel determination method according to claim 11 further comprising:

determining the at least one type of communication channel on the basis of an allowable number of the at least one mobile station that receive a service of the distribution of the communication data content.

19. (previously presented): The channel determination method according to claim 11 further comprising:

determining the at least one type of communication channel on the basis of an allowable number of the at least one mobile station that receive mobile



communication services other than the distribution of the communication data content.

20. (previously presented): The channel switching control method according to claim 11, wherein

the determining of the at least one type of communication channel between the base station and the at least one mobile station is performed in the distribution of the communication data content.

21. (currently amended): A network comprising:

at least one base station which utilizes at least one type of communication channel to distribute communication data content between the at least one base station and at least one mobile station;

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channel switching determination means which makes a determination on the at least one type of communication channel to be used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein

the at least one type of communication channel, further comprises:

an individual communication channel, and

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a common communication channel, and

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a base station control device which controls the at least one base station,

wherein

the channel determination means bases the determination of whether the at least one type of communication channel is switched from an individual communication channel to a common communication channel on a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel when a common communication channel transmission power is set between the first downlink transmission power and the second downlink transmission power, and

the channel determination means bases the determination to switch from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

**22. (canceled)**

**23. (canceled)**

24. (currently amended): The network according to claim 21, wherein

the base station control device based on the determination directs the at least one base station to switch the at least one type of communication channel from the individual communication channel to the common communication channel as long as a total downlink transmission power of the at least one base

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station during the channel switching does not exceed an upper limit of a transmission power that the at least one base station can output to a cell.

25. (previously presented): The network according to claim 24, wherein the individual communication channel is individually assigned to the at least one mobile station, the common communication channel is commonly assigned to the at least one mobile station, and the base station control device sequentially performs the channel determination for the individual communication channel in an ascending order of the downlink transmission power to complete the channel determination from the individual communication channel to the common communication channel.

26. (previously presented): The network according to claim 24, wherein the common communication channel is commonly assigned to the at least one mobile station, the individual communication channel is individually assigned to the at least one mobile station, the base station control device sequentially assigns the individual communication channel to the at least one mobile station in a descending order of the downlink transmission power of the individual communication channel, and

the at least one mobile station receives the communication data content to determine the at least one type of communication channel when the individual communication channel is used..

27. (previously presented): The network according to claim 21, wherein the channel determination means bases the determination on a total number of the at least one mobile station.

28. (previously presented): The network according to claim 21, wherein the channel determination means bases the determination on an allowable number of the at least one mobile station that receives a distribution of the communication data content.

29. (previously presented): The network according to claim 21, wherein the channel determination means bases the determination on an allowable number of the at least one mobile station that receives mobile communication services other than distribution of the communication data content.

30. (previously presented): The network according to claim 21, wherein the determination of the at least one type of communication channel between the at least one base station and the at least one mobile station is performed in the distribution of the communication data content.

31. (currently amended): A channel determination method of a network comprising:

using at least one type of communication channel to distribute communication data content between at least one base station and at least one mobile station;

determining the at least one type of communication channel used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein

the at least one type of communication channel, further comprises:

an individual communication channel, and

a common communication channel;

directing the at least one base station by using a base station control device in the network;

determining whether the at least one type of communication channel is switched from an individual communication channel to a common communication channel on the basis of a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common channel when a common communication channel transmission power is set between the first downlink transmission power and the second downlink transmission power; and

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determining that the at least one type of communication channel is  
switched from the individual communication channel to the common  
communication channel when the second downlink transmission power is less  
than the first downlink transmission power.

**32. (canceled)**

**33. (canceled)**

34. (currently amended): The channel switching control method according  
to claim 31, further comprising:

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directing the base station by the base station device according to the  
determination to switch the at least one type of communication channel from the  
individual communication channel to the common communication channel as  
long as a total downlink transmission power of the at least one base station  
during the channel switching does not exceed an upper limit of a transmission  
power that the at least one base station can output to a cell.

35. (previously presented): The channel switching control method  
according to claim 34 further comprising:

assigning individually the individual communication channel to the at least  
one mobile station;

assigning commonly the common communication channel to the at least one mobile station; and

sequentially performing the channel switching by the base station device for the individual communication channel in an ascending order of a downlink transmission power to complete the channel switching from the individual communication channel to the common communication channel.

36. (previously presented): The channel switching control method according to claim 34 further comprising:

assigning commonly the common communication channel to the at least one mobile station;

assigning individually the individual communication channel to the at least one mobile station; and

assigning sequentially the individual communication channel to the at least one mobile device by the base station device in a descending order of downlink transmission power of the individual communication channel through which the at least one mobile station receives the communication data content when used.

37. (previously presented): The channel switching control method according to claim 31 further comprising:

determining the at least one type of communication channel on the basis of a total number of the at least one mobile station.

38. (previously presented): The channel switching control method according to claim 31 further comprising:

determining the at least one type of communication channel on the basis of an allowable number of the at least one mobile station that receives a distribution of the communication data content.

39. (previously presented): The channel switching control method according to claim 31 further comprising:

determining the at least one type of the communication channel on the basis of an allowable number of the at least one mobile stations that receive mobile communication services other than a distribution of the communication data content.

40. (previously presented): The channel switching control method according to claim 31, wherein

the determining of the at least one type of communication channel between the at least one base station and the at least one mobile station is performed in the distribution of the communication data content.

41. (currently amended): A content distribution system comprising:



a base station which utilizes at least one of an individual communication channel and a common communication channel to distribute communication data content between the base station and at least one mobile station, wherein

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the base station further comprising channel adjustment means which adjusts a transmission power of the individual communication channel and a transmission power of the common communication channel so that a total transmission power of the individual communication channel and the common communication channel comply with a predetermined value; and

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channel determination means which bases a determination on a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel, wherein

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the channel determination means determines that at least one type of communication channel is switched from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

### **Drawings**

2. The drawings were received on 6/19/2008. These drawings are acceptable.

***Allowable Subject Matter***

3. In view of the Amended Claims as discussed above in item 1, Claims 1, 4-11, 14-21, 24-31 and 34-41 are allowed.

The following is an examiner's statement of reasons for allowance: 1, 4-11, 14-21, 24-31 and 34-41.

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With respect to claim 1, Kim (U.S. Patent 6,603,966 B1) is the closest art to the application invention, but could not be used due to date failure.

With respect to claim 1, the prior art of record fails to disclose singly or in combination or render obvious that channel determination means which makes a determination of the at least one type of communication channel to be used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein the at least one type of communication channel, further comprises: an individual communication channel, and a common communication channel, the channel determination means bases the determination on a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel, and the channel determination means determines that the at least one type of communication channel is switched from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

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With respect to claim 11, the prior art of record fails to disclose singly or in combination or render obvious that determining one of the at least one type of

communication channel used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein; the at least one type of communication channel, further comprises: an individual communication channel, and a common communication channel; determining the one of the at least one type of communication channel used on the basis of a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common channel; determining whether the at least one type of communication channel is switched from an individual communication channel to a common communication channel on the basis of a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel when the common communication channel is being used; and determining the at least one type of communication channel is switched from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

With respect to claim 21, the prior art of record fails to disclose singly or in combination or render obvious that channel switching determination means which makes a determination on the at least one type of communication channel to be used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein the at least one type of communication channel, further comprises: an individual communication channel, and a common communication channel; and a base station control device which controls the at least one base station, wherein the channel determination means bases the determination of whether the at

least one type of communication channel is switched from an individual communication channel to a common communication channel on a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel when a common communication channel transmission power is set between the first downlink transmission power and the second downlink transmission power, and the channel determination means bases the determination to switch from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

With respect to claim 31, the prior art of record fails to disclose singly or in combination or render obvious that determining the at least one type of communication channel used based on a transmission distribution power of the communication data content to one of the at least one mobile station, wherein the at least one type of communication channel, further comprises: an individual communication channel, and a common communication channel; directing the at least one base station by using a base station control device in the network; determining whether the at least one type of communication channel is switched from an individual communication channel to a common communication channel on the basis of a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common channel when a common communication channel transmission power is set between the first downlink transmission power and the second downlink transmission power; and determining that the at least one type of communication channel is switched

from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

With respect to claim 41, the prior art of record fails to disclose singly or in combination or render obvious that channel adjustment means which adjusts a transmission power of the individual communication channel and a transmission power of the common communication channel so that a total transmission power of the individual communication channel and the common communication channel comply with a predetermined value; and channel determination means which bases a determination on a first downlink transmission power of the individual communication channel and a second downlink transmission power of the common communication channel, wherein the channel determination means determines that at least one type of communication channel is switched from the individual communication channel to the common communication channel when the second downlink transmission power is less than the first downlink transmission power.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

#### ***Conclusion***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- a) Ishikawa (U.S. 6,907,250 B2).
- b) Valkealahti (U.S. Pub. No.: 2005/0107106 A1).
- c) Lieshout (U.S. Pub. No.: 2002/009483 A1).
- d) Mori (U.S. Pub.: 2006/0111137 A1).
- e) Hamabe (U.S. Pub. No.: 2002/0119798 A1).
- f) Bark (U.S. Pub. No.: 2002/0160781 A1).
- g) Hamabe (U.S. Pub. No.: 2002/0119798 A1).
- h) Kim (U.S. Pub. No.: 2004/0131026 A1).
- i) Ahn (U.S. 6,272,124 B1).
- j) Terry (U.S. Pub. No.: 2004/0116125 A1).
- k) Malmlof (U.S. 6,594,241 B1).

Any inquiry concerning this communication or earlier communication from the examiner should be directed to Kamran Afshar whose telephone number is (571) 272-7796. The examiner can be reached on Monday-Friday.

If attempts to reach the examiner by the telephone are unsuccessful, the examiner's supervisor, **Eng, George** can be reached @ (571) 272-7492. The fax number for the organization where this application or proceeding is assigned is **571-273-8300** for all communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status

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/Kamran Afshar/

Primary Examiner, Art Unit 2617